UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/567,582	MATSUNAGA, SHIGEKI
	Examiner	Art Unit
	Nicholas C. Pachol	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-15* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>08 February 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☒ All   b)☐ Some *   c)☐ None of:
          1.☒ Certified copies of the priority documents have been received.
          2.☐ Certified copies of the priority documents have been received in Application No. _____.
          3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date <u>02/08/06, 05/29/07</u>.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Objections

2.   Claim 12 is objected to because of the following informalities: Claim 12 claims

"…sending the print data based on the notified location of the spool, from the print

instructing apparatus to the spool,;…" The claim should read sending the print data

based on the notified location of the spool, from the print instructing apparatus to the

spool;…" Appropriate correction is required.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter.

Claims 11 claims "A program …" However, the claims do not define a *program*

to be a functional descriptive material <u>encoded on a memory/disk/computer-readable</u>

<u>medium</u>, and is thus non-statutory for that reason (i.e., "When functional descriptive

material is recorded on some computer-readable medium it becomes structurally and

functionally interrelated to the medium and will be statutory in most cases since use of

technology permits the function of the descriptive material to be realized"). Moreover, a "program" is neither a process ("action"), nor machine, nor manufacture, nor composition of matter (i.e., tangible "thing") and therefore non-statutory.

Such claimed "program" (software) does not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program' s functionality to be realized. As such, "program"/software, not claimed <u>as embodied/encoded in computer-readable medium</u> and is not statutory because the "program"/software is not capable of causing functional change in the computer. Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory and appears to be one type of claim that is considered nonstatutory, under the present USPTO Interim Guidelines, 1300 Official Gazette Patent and Trademark Office 142 (Nov. 22, 2005).

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-3, 7, 8, 10, and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Tokashiki (JP 2000-099291).

Regarding Claim 1, Tokashiki teaches a printing apparatus (Figure 1, element

1500) that is connected via a communication path (Figure 1, element 21) with a print

instructing apparatus (Figure 1, element 3000) which issues a print instruction to print

print data (Paragraph 47) and an external storage apparatus (Figure 1, element 14)

which has a storage space for temporarily storing the print data (Paragraph 47, wherein

the 2nd storage area could be the external memory), said printing apparatus comprising:

a spool reservation request unit operable to issue, to the external storage

apparatus, a request for reservation of a spool for temporarily storing the print data

(Paragraph 51);

a spool reservation response receiving unit operable to receive, from the external

storage apparatus, a response to the request issued by said spool reservation request

unit (Paragraph 52);

a print instruction receiving unit operable to receive the print instruction issued by

the print instructing apparatus (Paragraph 47);

a print data receiving unit operable to receive the print data sent from the spool,

after the print instruction is received and the print data is stored in the spool in the

external storage apparatus (Paragraph 52); and

a printing unit operable to print the received print data (Paragraph 52).

Regarding Claim 2, Tokashiki further teaches wherein said spool reservation

request unit is operable to issue, to the external storage apparatus, the request for

reservation of the spool, after said print instruction receiving unit receives the print

instruction (Paragraphs 47 and 51).

Regarding Claim 3, Tokashiki further teaches a spool release request unit

operable to issue, to the external storage apparatus, a request for release of the spool

every time said printing unit has finished printing, the request requesting to release the

spool (Paragraph 55).

Regarding Claim 7, Tokashiki further teaches a print data save unit operable to

receive the print data outputted from the print instructing apparatus, and to request the

external storage apparatus to temporarily store the print data into the spool (Paragraph

54 and 55).

Regarding Claim 8, Tokashiki further teaches wherein said print data receiving

unit is operable to obtain the print data by issuing a request to the external storage

apparatus, the request requesting to output the print data from the spool (Paragraph

55).

Regarding Claim 10, Tokashiki teaches a printing method (Paragraph 1) for use

with a printing apparatus (Figure 1, element 1500) that is connected via a

communication path (Figure 1, element 21) with a print instructing apparatus (Figure 1,

element 3000) which issues a print instruction to print print data (Paragraph 47) and an

external storage apparatus (Figure 1, element 14) which has a storage space for

temporarily storing the print data (Paragraph 47, wherein the 2nd storage area could be

the external memory), said method comprising the steps of:

issuing a request for reservation of a spool for temporarily storing the print data,

to the external storage apparatus (Paragraph 51);

receiving a response to the request issued in said issuing, from the external

storage apparatus (Paragraph 52);

receiving the print instruction issued by the print instructing apparatus (Paragraph

47);

receiving the print data sent from the spool, after the print instruction is received

and the print data is stored in the spool in the external storage apparatus (Paragraph

52); and

printing the received print data (Paragraph 52).

Regarding Claim 11, Tokashiki teaches a program for use with a printing

apparatus that is connected via a communication path with a print instructing apparatus

which issues a print instruction to print print data and an external storage apparatus

which has a storage space for temporarily storing the print data, said program causing a

computer to execute steps comprised in said printing method according to Claim 10

(Paragraph 1).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 4, 5, and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over

Tokashiki (JP 2000-099291) in view of Johnson (US 7,468,802).

        Regarding Claim 4, Tokashiki does not teach wherein said spool reservation

request unit is operable to issue the request to the external storage apparatus when

said printing apparatus is powered on.

        Johnson does teach wherein said spool reservation request unit is operable to

issue the request to the external storage apparatus when said printing apparatus is

powered on (Column 9, lines 10-25, wherein the jobs cannot be spooled if the power is

off, therefore since Tokashiki stores the print data temporally in the external storage for

printing, then the print job can not be sent there if the power is off since it can not be

spooled if the power is off).

        Tokashiki and Johnson are combinable because they both teach processing a

print job.

        Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Tokashiki with the teachings of

Johnson for the purpose of preserving jobs in the queue when the power is off

(Johnson: Column 9, lines 10-25).

Regarding Claim 5, Tokashiki does not teach a spool release request unit

operable to issue, to the external storage apparatus, a request for release of the spool

when said printing apparatus is powered off.

Johnson does teach a spool release request unit operable to issue, to the

external storage apparatus, a request for release of the spool when said printing

apparatus is powered off.

(Column 9, lines 10-25, wherein the jobs are still stored if the power is off,

therefore since Tokashiki stores the print data temporally in the external storage for

printing, then the print job stays in the queue which can still be managed if the power is

off).

Tokashiki and Johnson are combinable because they both teach processing a

print job.

Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Tokashiki with the teachings of

Johnson for the purpose of preserving jobs in the queue when the power is off

(Johnson: Column 9, lines 10-25).

Regarding Claim 9, Tokashiki does not teach a spool monitor unit operable to monitor whether or not the print data is stored in the spool in the external storage apparatus,

wherein said print data receiving unit is operable to issue, to the external storage apparatus, the request to output the print data from the spool, when said spool monitor unit determines that the print data is stored in the spool in the external storage apparatus.

Johnson does teach a spool monitor unit operable to monitor whether or not the print data is stored in the spool in the external storage apparatus (Column 9, lines 10-25, wherein the job monitor determines if the spool file is saved. Since Tokashiki teaches storing the print data in the external storage, if the job manager indicates that the print job is spooled, then it is stored in the external storage),

wherein said print data receiving unit is operable to issue, to the external storage apparatus, the request to output the print data from the spool, when said spool monitor unit determines that the print data is stored in the spool in the external storage apparatus (Column 9, lines 10-25).

Tokashiki and Johnson are combinable because they both teach processing a print job.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Tokashiki with the teachings of Johnson for the purpose of preserving jobs in the queue when the power is off (Johnson: Column 9, lines 10-25).

8.   Claims 6 and 12-15 rejected under 35 U.S.C. 103(a) as being unpatentable over

Tokashiki (JP 2000-099291) in view of Someya (US 6,219,152).

        Regarding Claim 6, Tokashiki does not teach wherein said spool reservation

response receiving unit is operable to receive spool information including information for

specifying a location of the spool as the response, from the external storage apparatus,

        said printing apparatus further comprises a spool location notification unit

operable to notify the location of the spool specified by the spool information, to the print

instructing apparatus, and

        the print instructing apparatus is operable to output the print data to the spool

notified by the spool information.

        Someya does teach wherein said spool reservation response receiving unit is

operable to receive spool information including information for specifying a location of

the spool as the response, from the external storage apparatus (Column 7, line 47-

Column 8, line 2, wherein the external storage medium determines where the

information should be stored and this information is transferred back to the printer),

        said printing apparatus further comprises a spool location notification unit

operable to notify the location of the spool specified by the spool information, to the print

instructing apparatus (Column 7, line 47- Column 8, line 2), and

        the print instructing apparatus is operable to output the print data to the spool

notified by the spool information (Column 7, line 47- Column 8, line 2, wherein the

printer of Tokashiki now knows where the data is stored in the external storage of

Tokashiki, so therefore printing can continue as normal in regards to locating the

information necessary to print).

Tokashiki and Someya are combinable because they both teach allocating

memory for printing.

Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Tokashiki and Someya for the

purpose of utilizing external memory to perform desired printing when the memory in the

printer is short (Someya: Column 1, lines 29-35).

Regarding Claim 12, Tokashiki teaches a printing method (Paragraph 1) for use

in a printing system including a print instructing apparatus (Figure 1 element 3000), an

external storage apparatus (Figure 1, element 14), and a printing apparatus (Figure 1,

element 1500) which are connected via a communication path (Figure 1, element 21),

said method comprising:

issuing the print instruction to print print data, from the print instructing apparatus

to the printing apparatus (Paragraph 47);

issuing a request for reservation of a spool for temporarily storing the print data,

from the printing apparatus to the external storage apparatus (Paragraph 51); and

sending the print data, from the spool to the printing apparatus (Paragraph 52);

and

printing the sent print data by the printing apparatus (Paragraph 52).

Tokashiki does not teach notifying a location of the spool, from the external storage apparatus to the printing apparatus;

notifying the location of the spool notified by the external storage apparatus, from the printing apparatus to the print instructing apparatus;

sending the print data based on the notified location of the spool, from the print instructing apparatus to the spool.

Someya does teach notifying a location of the spool, from the external storage apparatus to the printing apparatus (Column 7, line 47- Column 8, line 2, wherein the external storage medium determines where the information should be stored and this information is transferred back to the printer);

notifying the location of the spool notified by the external storage apparatus, from the printing apparatus to the print instructing apparatus (Column 7, line 47 – Column 8, line 2);

sending the print data based on the notified location of the spool, from the print instructing apparatus to the spool, (Column 7, line 47- Column 8, line 2, wherein the printer of Tokashiki now knows where the data is stored in the external storage of Tokashiki, so therefore printing can continue as normal in regards to locating the information necessary to print).

Tokashiki and Someya are combinable because they both teach allocating memory for printing.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Tokashiki and Someya for the

purpose of utilizing external memory to perform desired printing when the memory in the printer is short (Someya: Column 1, lines 29-35).

Regarding Claim 13, Tokashiki further teaches wherein in said issuing of the request to reserve the spool, the request is issued to reserve the spool prior to said issuing of the print instruction (Paragraphs 47 and 51).

Regarding Claim 14, Tokashiki further teaches releasing the spool by the external storage apparatus, when said printing is complete (Paragraph 55).

Regarding Claim 15, Tokashiki further teaches wherein in said sending of the print data, the print data is sent from the print instructing apparatus to the spool via the printing apparatus (Paragraph 51).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas C. Pachol whose telephone number is 571-270-3433. The examiner can normally be reached on M-Thr, 8:00 a.m.- 4:00 p.m. (EST), Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler L. Haskins can be reached on 571-272-7406. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

N.P.
05/21/09

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625